

2 <sup>1</sup>19. Method of claim ~~18~~ wherein said excess loss is due to hypercalcemia.

3 <sup>1</sup>20. Method of claim ~~18~~ wherein said excess loss is due to osteopenia or osteoporosis.

4 <sup>1</sup>21. Method of claim ~~18~~ wherein said excess loss is due to bone metastasis from malignant tumors.

5 <sup>1</sup>22. Method of claim ~~18~~ wherein said excess loss is due to hyperparathyroidism.

6 <sup>1</sup>23. Method of claim ~~18~~ wherein said excess loss is due to periodontal disease and said gallium compound is administered intra-orally in a topical formulation comprising a concentrated rinse, gel or other pharmaceutically acceptable carrier.

7 <sup>1</sup>24. Method effective against excessive loss of calcium from bone in animals requiring such treatment comprising the <sup>administering to said animals</sup> ~~administration~~ of an effective amount of a pharmaceutically acceptable gallium compound.

8 <sup>1</sup>25. Method of inhibiting release of calcium from bone explants comprising contacting said explants with a gallium compound.

9 ~~26~~. Method of claim ~~18~~<sup>1</sup> wherein said gallium compound is administered intravenously, subcutaneously or intramuscularly.

10 ~~27~~. Method of claim ~~20~~<sup>3</sup> wherein intravenous injection comprises continuous infusion.

11 ~~28~~. Method of claim ~~26~~<sup>9</sup> wherein said injection comprises amount ranging from about 10~~4~~<sup>14</sup>400 mg/sq m/day.

12 ~~29~~. Method of claim ~~18~~<sup>1</sup> wherein the amount of said administered gallium compound is sufficient to maintain a steady state plasma gallium concentration ranging from about 0.1~~5~~<sup>14</sup>5.0 ug/ml.

13 ~~30~~. Method claim ~~29~~<sup>12</sup> wherein the amount of said administered gallium compound is sufficient to maintain a steady state plasma gallium concentration ranging from about 0.9~~2~~<sup>14</sup>2.0 ug/ml.

14 ~~31~~. Method of claim ~~18~~<sup>1</sup> wherein said gallium compound is administered orally, sub-lingually, per rectum or transdermally.

15-<sup>14</sup>32. Method of claim ~~31~~ wherein the amount of administered gallium compound comprises amounts from about 0.5-20 grams/day.

16-<sup>14</sup>33. Method of claim ~~18~~ wherein said gallium compound is selected from the group consisting of gallium nitrate, gallium citrate, gallium halide, gallium chloride, gallium carbonate, gallium acetate, gallium tartrate, gallium oxalate, gallium oxide and hydrated gallium oxide.

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17-<sup>16</sup>34. Method of claim ~~33~~ wherein said gallium compound is gallium nitrate.

18-<sup>2</sup>35. Method of claim ~~19~~ wherein said gallium compound is gallium nitrate.

19-<sup>3</sup>36. Method of claim ~~20~~ wherein said gallium compound is gallium nitrate.

20-<sup>4</sup>37. Method of claim ~~21~~ wherein said gallium compound is gallium nitrate.

21-<sup>5</sup>38. Method of claim ~~22~~ wherein said gallium compound is gallium nitrate.

~~2239~~<sup>6</sup>. Method of claim ~~23~~ wherein said gallium compound is gallium nitrate.

~~2340~~. Method effective against bone pain due to excessive loss of calcium from bone in a human individual requiring such treatment comprising administering to the individual an effective amount of pharmaceutically acceptable gallium compound.

Q1 ~~2441~~. Method effective against bone fractures due to excessive loss of calcium from bone in human a individual requiring such treatment comprising administering to the individual an effective amount of a pharmaceutically acceptable gallium compound.

~~41~~ 42. Topical formulation effective against excessive loss of calcium from bone due to periodontal disease comprising a pharmaceutically acceptable gallium compound and a concentrated rinse, gel or other pharmaceutically acceptable carrier.